WHAT IS CLAIMED

1. A system for processing a plurality of fluid samples, said system comprising:

a plurality of biological sample purification devices, each device of said plurality of devices comprising a tubular body having a first end, a first end opening, a second end, a second end opening, a species-immobilizing filter held within the tubular body, and a removable cap adapted to seal the second end opening; and

a sealing device having a surface adapted to individually seal each of the first end openings of said plurality of devices.

2. The system of claim 1, wherein said surface has a plurality of recesses therein, said sealing device is adapted to receive the first ends of said plurality of devices in respective ones of said recesses, and said sealing device is adapted to seal the first end openings of said plurality of devices when the respective first ends of said plurality of devices are received in said recesses.

3. The system of claim 1, wherein each device of said plurality of devices further includes a second removable cap adapted to seal the first end opening of the respective device.

4. The system of claim 1, wherein at least one device of said plurality of devices has the respective removable cap attached to the second end of the device and the respective second removable cap attached to the first end of the device.

5. The system of claim 3, wherein each device of said plurality of devices includes the respective removable cap attached to the second end of the device and the respective second removable cap attached to the first end of the device.

6. The system of claim 1, wherein said species-immobilizing filter of each device is positioned within the tubular body of the respective device such that the ratio of (1) the

distance from the filter to the first end, to (2) the distance from the filter to the second end, is greater than or equal to about 4:1.

7. The system of claim 1, wherein said species-immobilizing filter of each device is positioned at the second end of the respective tubular body.

8. The system of claim 1, wherein the first end opening of each device of said plurality of devices is sealed with said sealing device, and said sealing device includes an adhesive.

9. The system of claim 8, wherein the adhesive is optically-curable, pressure sensitive, or both.

10. The system of claim 1, wherein said species-immobilizing filter of each device comprises a nucleic acid purification membrane.

11. The system of claim 1, further including a target analyte bound to the species-immobilizing filter of at least one device of said plurality of devices, said target analyte comprising a nucleic acid or nucleic acid fragment.

12. The system of claim 11, wherein said at least one device that includes said target analyte also contains a polymerase chain reaction solution, a transcription solution, a reverse transcription solution, or a reverse transcription polymerase chain reaction solution.

13. The system of claim 1, further including a biological sample that comprises an animal cell lysate or a plant cell lysate, within the tubular body of at least one device of said plurality of devices.

14. The system of claim 1, further including a biological sample that comprises whole blood, within the tubular body of at least one device of said plurality of devices.

15. The system of claim 1, further including a biological sample that comprises tissue extract, within the tubular body of at least one device of said plurality of devices.

16. A purification apparatus including the system of claim 1, wherein the first end opening of each device of said plurality of devices is sealed by said sealing device in the form of an assembly.

17. The purification apparatus of claim 16, wherein said assembly further comprises a second sealing device, said second sealing device having a surface adapted to seal the second end openings of said plurality of devices.

18. The purification apparatus of claim 17, wherein said surface of said second sealing device has a plurality of recesses therein, said second sealing device is adapted to receive the second ends of two or more of said devices in respective ones of said recesses, and said second sealing device is adapted to seal the second end openings of said plurality of devices when the respective second ends of said devices are received in said recesses.

19. A purification apparatus including the system of claim 2, wherein each device of said plurality of devices is positioned with the respective first end thereof received within a corresponding one of said recesses in said sealing device, in the form of an assembly.

20. A method for manipulating at least one biological sample, said method comprising:

providing a biological sample purification device comprising a tubular body having a first end, a first end opening, a second end, and a second end opening, and a species-immobilizing filter within the tubular body;

introducing a biological sample into the tubular body through at least one of the first end opening and the second end opening of the tubular body;

causing a pressure differential across said species-immobilizing filter to immobilize a target analyte, if present in said sample, on or in said filter;

after said causing a pressure differential, sealing at least one of said first and second end openings with a sealing device, said sealing device having a surface adapted to seal at

least one of the first and second end openings of a plurality of said biological sample purification devices, to form a sealed device; and

subsequently analyzing said device to determine the presence or absence of the target analyte or a reaction product thereof, in said device.

21. The method of claim 20, wherein said method further includes sealing at least one of said first and second end openings with a removable cap.

22. The method of claim 20, wherein a plurality of said devices is provided, and said method comprises:

introducing biological samples into the respective tubular body of each device of said plurality of devices through at least one of the respective first and second end openings of the respective tubular body;

causing a pressure differential across said species-immobilizing filter of each device to immobilize a target analyte, if present in the respective biological sample, on or in said filter of each device;

after said causing a pressure differential, sealing at least one of said first and second end openings of each device with said sealing device, to form said sealed device; and

subsequently analyzing each of said devices to determine the presence or absence of the target analyte or a reaction product thereof, in each said device.

23. The method of claim 20, wherein the surface of said sealing device includes an adhesive and said method includes adhering said sealing device and at least one of said first and second ends of said tubular body together.

24. The method of claim 23, wherein the adhesive is ultraviolet radiation-curable and said method includes curing said adhesive with ultraviolet radiation.

25. The method of claim 20, wherein said species-immobilizing filter comprises a nucleic acid purification membrane.

26. The method of claim 20, wherein said biological sample includes a target analyte and said method includes binding said target analyte to said species-immobilizing filter, said target analyte comprising a nucleic acid or nucleic acid fragment.

27. The method of claim 26, wherein said device contains a polymerase chain reaction solution, a transcription solution, a reverse transcription solution, or a reverse transcription polymerase chain reaction solution.

28. The method of claim 20, wherein said biological sample comprises an animal cell lysate, a plant cell lysate, whole blood, or a tissue extract.

29. The method of claim 20, further comprising introducing a reaction solution into the tubular body after said causing a pressure differential and before said sealing.

30. The method of claim 29, further comprising exposing the biological sample and reaction solution in said tubular body to conditions to effect a reaction.

31. The method of claim 20, wherein the species-immobilizing filter comprises a receptor capable of binding to a target analyte.

32. The method claim 20, further comprising archiving said device, after introducing the biological sample, for at least about 100 hours before said analyzing.

33. A method for archiving at least one biological sample, said method comprising:

providing a biological sample purification device, said device comprising

a tubular body having a first end, a first end opening, a second end, and a second end opening,

a species-immobilizing filter within the tubular body between said first end opening and said second end opening;

introducing a biological sample into the tubular body through at least one of the first end opening and the second end opening;

sealing at least one of said first and second end openings with a sealing device, such that both end openings are sealed to form a sealed device, said sealing device having a surface adapted to seal at least one respective end opening of each of a plurality of said devices; and

archiving the sealed device.

34. The method of claim 33, wherein said surface of said sealing device has a plurality of recesses, each recess adapted for receiving at least one of said first and second ends and adapted to seal at least one of said first and second end openings.

35. The method of claim 33, wherein said device includes at least one removable cap attached to at least one of the first and second ends.

36. The method of claim 33, wherein the surface of said sealing device includes an adhesive and said method includes adhering said sealing device and at least one of said first and second ends of said tubular body together.

37. The method of claim 36, wherein the adhesive is ultraviolet radiation-curable and said method includes curing said adhesive with ultraviolet radiation.

38. The method of claim 33, wherein said species-immobilizing filter comprises a nucleic acid purification membrane.

39. The method of claim 33, wherein said biological sample includes a target analyte and said method includes binding said target analyte to said species-immobilizing filter, said target analyte comprising a nucleic acid or nucleic acid fragment.

40. The method of claim 33, wherein said biological sample comprises an animal cell lysate, a plant cell lysate, whole blood, or tissue extract.

41. The method of claim 33, further comprising introducing a reaction solution into the tubular body before said sealing.

42. A method for separating at least one target analyte comprising a nucleic acid or nucleic acid fragment, from a biological sample, said method comprising:

providing a nucleic acid or nucleic acid fragment sample purification device, said device comprising a tubular body having a first end, a first end opening, a second end, a second end opening, and a species-immobilizing filter within the tubular body;

introducing a biological sample including a nucleic acid or nucleic acid fragment through an end opening of the tubular body;

causing target analyte, if present in said sample, to be immobilized on or in said species-immobilizing filter;

removing components of said biological sample other than said target analyte, from said species-immobilizing filter; and

sealing at least one of said first and second end openings with a sealing device, such that both end openings are sealed to form a sealed device, said sealing device having a surface adapted to seal at least one respective end opening of each of a plurality of said purification devices.

43. The method of claim 42, wherein said causing target analyte to bind to the species-immobilizing filter includes lysing whole blood cells containing said target analyte to release target analyte from said whole blood cells.

44. The method of claim 42, wherein said whole blood cells are lysed after said biological sample is introduced into said tubular body.

45. The method of claim 42, wherein a lysing agent is introduced into the tubular body before said biological sample is introduced into the tubular body, said lysing agent lysing components of said biological sample.

46. The method of claim 42, wherein a lysing agent is introduced into the tubular body after said biological sample is introduced into the tubular body, said lysing agent lysing components of said biological sample.

47. The method of claim 42, further comprising introducing a reaction solution into the tubular body before said sealing, and after sealing exposing the biological sample and a reaction solution in said tubular body to conditions to effect a reaction.

48. An analytical system for manipulating biological samples, comprising;

a plate having a first surface and a second surface that opposes said first surface, and a plurality of through-holes, each through-hole extending from said first surface to said second surface and defining a first end opening at said first surface and a second end opening at said second surface;

a plurality of species-immobilizing filters, each disposed within a respective one of said through-holes; and

a first sealing device adapted to individually seal each first end opening of said plurality of through-holes; and

a second sealing device adapted to seal each second end opening of said plurality of through-holes.

49. The system of claim 48, wherein said first sealing device comprises a plurality of removeable end caps adapted to individually seal the first end openings of said plurality of through-holes.

50. The system of claim 48, wherein at least one of said first sealing device and said second sealing device includes a sealing tray having recesses adapted to individually seal: the first end openings; the second end openings; or both the first end openings and the second end openings, of said plurality of through-holes.

51. A method of manipulating a biological sample comprising:

collecting a biological sample in or on one or more of the plurality of species-immobilizing filters of the system of claim 48.

52. The method of claim 51, further comprising purifying a target analyte by retaining said target analyte on or in said species-immobilizing filter, and separating said target analyte from other components in a sample introduced in the through-holes of said system.

53. A method comprising: introducing a biological sample including a target analyte in a first through-hole of the system of claim 48, such that said target analyte is immobilized in or on the respective species-immobilizing filter within the first through-hole;

introducing a solution into at least said first through-hole, said solution having sufficient components to enable a reaction of the target analyte; and

subsequent to introducing said sample and said solution, sealing the first end openings and second end openings of said system to form a sealed system.

54. The method of claim 53, wherein said solution comprises a polymerase chain reaction solution, a transcription solution, a reverse transcription solution, and a reverse transcription polymerase chain reaction solution, or a combination thereof.

55. The method of claim 54, wherein said solution is a polymerase chain reaction solution and said method further comprises subjecting the sealed system to conditions for affecting polymerase chain reaction of the target analyte.

56. A method of archiving a biological sample, comprising:

Introducing a biological sample into one or more through-holes of the plurality of through-holes of the system of claim 48;

sealing the first end openings and the second end openings of said system to form a sealed device; and

archiving said sealed device.

57. The method of claim 56, wherein said sealed device is archived for a period of time of about one hundred (100) hours or greater.